

State of Utah  
Administrative Rule Analysis

**NOTICE OF PROPOSED RULE OR CHANGE**

The agency identified below in box 1 provides notice of proposed rule or change pursuant to Utah Code Subsections 63-46a-4(2) and (4). Please address questions regarding information on this notice to the agency. The full text of all rule filings is published in the *Utah State Bulletin* unless excluded because of space constraints. The full text of all rule filings may also be inspected at the Division of Administrative Rules.

State of Utah Division of Administrative Rules (DAR) 4120 State Office Building; 450 North Main PO Box 141007 Salt Lake City, UT 84114-1007 Phone: (801) 538-3218, FAX: (801) 538-1773 State E-mail: <i>asdomain.asitmain.rules</i>	DAR file no.:	
	Utah Admin. Code ref. (R no.):	R156-56
	Date filed:	
	Time filed:	
	Received by:	

1. Department:	Commerce
Agency:	Occupational and Professional Licensing
Room no., building:	Heber M. Wells Building - 4th Floor
Street address:	160 East 300 South
Mailing address:	PO Box 146741
City, state ZIP:	Salt Lake City UT 84114-6741
Contact person:	Dan S. Jones
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(Interested persons may inspect this filing at the above address or at DAR between 8:00 a.m. and 5:00 p.m. on business days.)

2. Title of rule or section (catchline):
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Utah Uniform Building Standard Act Rules

3. Type of notice:
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Proposed rules	<input type="checkbox"/> New	<input checked="" type="checkbox"/> Amendment	<input type="checkbox"/> Repeal
	<input type="checkbox"/> Repeal and reenact		
Other rule types	Change in proposed rule (changes original proposed rule file no.: <input type="text"/> )		

4. Purpose of the rule or reason for the change:
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The Division and Uniform Building Code Commission are proposing changes regarding the flashing requirements to prevent moisture from entering structures. Due to the potential controversy regarding these changes, this rule change is being made as a separate filing so as not to affect the larger main proposed rule filing.

5. This rule or change is a response to comments by the Administrative Rules Review Committee.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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6. Summary of the rule or change:
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In Section 704-Statewide Amendments to the IBC: Added amendments affecting Section 109 and Section 1405.3. In Section 711-Statewide Amendments to the IRC: Added amendments affecting Section 109 and Section R703.8. The proposed amendments impose additional requirements to flashings to prevent moisture from entering structures. Proponents of this requirement state the failure to moist proof may result in costly deterioration to structures including black mold. Proponents claim if damage occurs cost to repair could be up to \$100,000. NOTE: Paragraph numbering will be corrected via a nonsubstantive rule filing once the Division and Uniform Building Code Commission have determined which rule amendment filings should be made effective as there are four rule filings all affecting the same rule.

7. Aggregate anticipated cost or savings to:
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State of Utah Administrative Rule Analysis			
State budget:	There will be no cost to the Division of Occupational and Professional Licensing to print this rule once all proposed amendments are made effective as this rule is no longer printed by the Division, but the rule is available on the Division's website. The Division is unable to determine if these proposed amendments will affect the state budget. The proposed changes would primarily affect homeowners, but the changes may also apply to other buildings which may be built with state funds.		
Local government:	The Division is unable to determine if these proposed amendments will affect local government budgets. The proposed changes would primarily affect homeowners, but the changes may also apply to other buildings which may be built with local government funds. The cost to administer additional inspections that may be required could be up to \$50 per home. This cost may or may not be passed on to the homeowner by the local jurisdiction.		
Other persons:	Homeowners: The cost of additional flashing could be up to an additional \$1,000 on a home. However, this cost to the homeowner may be offset by savings of repairing damages which proponents of the proposed amendment claim could be up to \$100,000. Other building owners: The Division is unable to determine if these proposed amendments will affect other building owners. The proposed changes would primarily affect homeowners, but the changes may also apply to other buildings. The aggregate costs or savings of the proposed amendments are impossible to determine except on a project by project basis.		
8. Compliance costs for affected persons ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency):			
Homeowners: The cost of additional flashing could be up to an additional \$1,000 on a home. However, this cost to the homeowner may be offset by savings of repairing damages which proponents of the proposed amendment claim could be up to \$100,000. Other building owners: The Division is unable to determine if these proposed amendments will affect other building owners. The proposed changes would primarily affect homeowners, but the changes may also apply to other buildings.			
9. Comments by the department head on the fiscal impact the rule may have on businesses:			
The purpose of this rule filing is to amend the International Building Code and the International Residential Code by adding a requirement for inspections of flashing and weatherproofing that would prevent moisture from entering structures. This amendment could create a business fiscal impact of \$1,000 per home or structure and would thereby be a negative fiscal impact to the construction industry and to buyers of homes and businesses. However, these costs might be outweighed by the damages incurred and the cost of repairs if moisture enters structures through lack of proper weatherproofing, which could amount to \$100,000 per structure. Ted Boyer, Executive Director			
10. This rule or change is authorized or mandated by state law, and implements or interprets the following state and federal laws.			
State code or constitution citations (required):	Section 58-56-1 and Subsections 58-1-106(1)(a), 58-1-202(1)(a), 58-56-4(2) and 58-56-6(2)(a)		
Federal citations (optional):			
11. This rule or change adds or updates an incorporated reference (submit a copy to DAR):			Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Reference title and date of issue or edition:			
12. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the <i>Utah State Bulletin</i> . See Section 63-46a-5 and Rule R15-1 for more information.)			
Comments will be accepted until 5:00 p.m. on (mm/dd/yyyy):	06/02/2003		
A public hearing (optional) will be held on (mm/dd/yyyy):	05/15/2003	at (time):	9:00 a.m.
at (place):	State Office Building, Room 4112, Salt Lake City, Utah		
13. This rule or change may become effective on (mm/dd/yyyy):	06/03/2003		
14. Indexing information - keywords (maximum of four, in lower case):			

State of Utah Administrative Rule Analysis			
contractors, building codes, building inspection, licensing			
15. Indexing information - affected industries (two-digit SIC codes):			
n/a			
16. Attach a WordPerfect document containing the text of this rule or change (filename):			R156-56.pr1
<b>To the agency:</b> Information requested on this form is required by Sections 63-46a-4, 5, 6, and 10. Incomplete forms may be returned to the agency for completion, possibly delaying publication in the <i>Utah State Bulletin</i> , and delaying the first possible effective date.			
<b>AGENCY AUTHORIZATION</b>			
Agency head or designee, and title:	J. Craig Jackson, Director	Date (mm/dd/yyyy):	03/27/2003

**R156. Commerce, Occupational and Professional Licensing.**  
**R156-56. Utah Uniform Building Standard Act Rules.**  
**R156-56-704. Statewide Amendments to the IBC.**

The following are adopted as amendments to the IBC to be applicable statewide:

(1) All references to the International Electrical Code are deleted and replaced with the National Electrical Code adopted under Subsection R156-56-701(1)(b).

(2) Section 101.4.1 is deleted and replaced with the following:

101.4.1 Electrical. The provisions of the National Electrical Code (NEC) shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings and appurtenances thereto.

(3) In Section 109, a new section is added as follows:

109.3.5 Weather-resistive barrier and flashing. After all framing, firestopping, draftstopping, and bracing are in place; and after the plumbing, mechanical, and electrical rough inspections are approved; and before brick veneer, masonry, lath, or stucco is installed on the exterior of a structure, an inspection shall be made of the weather-resistive barrier as required by Section 1403.2 and flashing as required by Section 1405.3 to prevent water from entering the weather-resistant exterior wall envelope.

The remaining sections will be renumbered as follows:

109.3.6 Lath or gypsum board inspection

109.3.7 Fire-resistant penetrations

109.3.8 Energy efficiency inspections

109.3.9 Other inspections

109.3.10 Special inspections

109.3.11 Final inspection.

(3) In Section 202, the following definition is added:  
ASSISTED LIVING FACILITY. See Section 308.1.1.

(4) Section 302.3.3 is deleted and replaced with the following:

302.3.3 Separated uses. Each portion of the building shall be individually classified as to use and shall be considered separated from other occupancies when completely separated from adjacent areas by fire barrier walls or horizontal assemblies or both having a fire-resistance rating determined in accordance with this sections.

302.3.3.1 All occupancies. Each fire area shall be separated from other occupancies in other fire areas in accordance with Table 302.3.3 based on the occupancy in the fire areas, and shall comply with the height limitations based on the use of that space and the type of construction classification. In each story the building area shall be such that the sum or the ratios of the floor area of each use divided by the allowable area for each use shall not exceed 1.

Exceptions for R-3 and U Groups:

1. The private garage shall be separated from the residence and its attic area by means of materials approved for one-hour fire resistive construction applied to the garage side. Door openings between the garage and the residence shall be equipped with either solid wood doors not less than 1 3/8 inches (35 mm) thick or doors in compliance with Section 714.2.3. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted.

2. Ducts in the private garage and ducts penetrating the walls or ceilings separating the dwelling from the garage shall be constructed of a minimum No. 26 gage (.48 mm) sheet steel and shall have no openings into the garage.

3. A separation is not required between a Group R-3 and Group U carport provided the carport is entirely open on two or more sides and there are not enclosed spaces above.

Where the building is equipped throughout with an automatic sprinkler system, the fire resistance ratings in Table 302.3.3 shall be reduced by one hour but not to less than one hour and to not less than that required for floor construction according to the type of construction. The one hour reduction shall not apply to fire area separations when H-1, H-2, H-3, or I-2 occupancies are included in the areas being separated.

Table 302.3.3 is deleted and replaced with:

Table 302.3.3, entitled "Required Separation of Occupancies", dated January 1, 2002, published by the Department of Commerce, Division of Occupational and Professional Licensing is hereby adopted and incorporated by reference. Table 302.3.3

identifies what type of separation of occupancies requirements are mandated in various types of property use classifications.

(5) A new Section 302.4 is added as follows:

302.4 Spaces used for different purposes. A room or space that is intended to be occupied at different times for different purposes shall comply with all requirements that are applicable to each of the purposes for which the room or space will be occupied.

(6) Section 305.2 is deleted and replaced with the following:

305.2 Day care. The building or structure, or portion thereof, for educational, supervision, child day care centers, or personal care services of more than four children shall be classified as a Group E occupancy. See Section 419 for special requirements for Group E child day care centers.

Exception: Areas used for child day care purposes with a Residential Certificate, Family License or Family Group License may be located in a Group R-2 or R-3 occupancy as provided in Section 310.1 and as applicable in Section 101.2.

Child day care centers providing care for more than 100 children 2 1/2 years or less of age shall be classified as Group I-4.

(7) In Section 308 the following definitions are added:

308.1.1 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

TYPE 1 ASSISTED LIVING FACILITY. A residential facility that provides a protected living arrangement for ambulatory, non-restrained persons who are capable of achieving mobility sufficient to exit the facility without the assistance of another person.

TYPE 2 ASSISTED LIVING FACILITY. A residential facility that provides an array of coordinated supportive personal and health care services to residents who meet the definition of semi-independent.

SEMI-INDEPENDENT. A person who is:

A. Physically disabled but able to direct his or her own care; or

B. Cognitively impaired or physically disabled but able to evacuate from the facility with the physical assistance of one person.

(8) Section 308.2 is deleted and replaced with the following:

308.2 Group I-1. This occupancy shall include a building or part thereof housing more than 16 persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services. The occupants are capable of responding

to an emergency situation without physical assistance from staff. This group shall include, but not be limited to, the following: residential board and care facilities, type 1 assisted living facilities, half-way houses, group homes, congregate care facilities, social rehabilitation facilities, alcohol and drug centers and convalescent facilities. A facility such as the above with five or fewer persons shall be classified as a Group R-3. A facility such as above, housing at least six and not more than 16 persons, shall be classified as a Group R-4.

(9) Section 308.3 is deleted and replaced with the following:

308.3 Group I-2. This occupancy shall include buildings and structures used for medical, surgical, psychiatric, nursing or custodial care on a 24-hour basis of more than three persons who are not capable of self-preservation. This group shall include, but not be limited to the following: hospitals, nursing homes (both intermediate care facilities and skilled nursing facilities), mental hospitals, detoxification facilities, ambulatory surgical centers with two or more operating rooms where care is less than 24 hours and type 2 assisted living facilities. Type 2 assisted living facilities with five or fewer persons shall be classified as a Group R-4. Type 2 assisted living facilities as defined in 308.1.1 with at least six and not more than sixteen residents shall be classified as a Group I-1 facility.

(10) Section 308.3.1 is deleted and replaced with the following:

308.3.1 Child care facility. A child care facility that provides care on a 24 hour basis to more than four children 2 1/2 years of age or less shall be classified as Group I-2.

(11) Section 308.5 is deleted and replaced with the following:

308.5 Group I-4, day care facilities. This group shall include buildings and structures occupied by persons of any age who receive custodial care less than 24 hours by individuals other than parents or guardians, relatives by blood, marriage, or adoption, and in a place other than the home of the person cared for. A facility such as the above with four or fewer persons shall be classified as an R-3. Places of worship during religious functions and Group E child day care centers are not included.

(12) Section 308.5.2 is deleted and replaced with the following:

308.5.2 Child care facility. A facility that provides supervision and personal care on less than a 24 hour basis for more than 100 children 2 1/2 years of age or less shall be classified as Group I-4.

(13) Section 310.1 is deleted and replaced with the following:

310.1 Residential Group "R". Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classed as an Institutional Group I. Residential occupancies shall include the following:

R-1 Residential occupancies where the occupants are primarily transient in nature (less than 30 days) including: Boarding Houses (transient), Hotels (transient), and Motels (transient).

R-2 Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including: Apartment Houses, Boarding houses (not transient), Convents, Dormitories, Fraternities and Sororities, Monasteries, Vacation timeshare properties, Hotels (non transient), and Motels (non transient).

R-3 Residential occupancies where the occupants are primarily permanent in nature and not classified as R-1, R-2, R-4 or I and where buildings do not contain more than two dwelling units, as applicable in Section 101.2, or adult and child care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours. Adult and child care facilities that are within a single family home are permitted to comply with the International Residential Code in accordance with Section 101.2. Areas used for day care purposes may be located in a Residential Group, R-3 occupancy provided the building substantially complies with the requirements for a dwelling unit and under all of the following conditions:

1. Compliance with the Utah Administrative Code, R710-8, Day Care Rules, as enacted under the authority of the Utah Fire Prevention Board.

2. Use is approved by the State Department of Health, as enacted under the authority of the Utah Child Care Licensing Act, UCA, Sections 26-39-101 through 26-39-110, and in any of the following categories:

- a. Utah Administrative Code, R430-50, Residential Certificate Child Care Standards.

- b. Utah Administrative Code, R430-90, Licensed Family Child Care.

3. Compliance with all zoning regulations of the local regulator.

R-4 Residential occupancies shall include buildings arranged for occupancy as Residential Care/Assisted Living Facilities including more than five but not more than 16 occupants, excluding staff.

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3 except as otherwise

provided for in this code or shall comply with the International Residential Code in accordance with Section 101.2.

(14) A new section 310.4 is added as follows:

310.4 Floor-level exit signs. Where exit signs are required by section 1003.2.10.1, additional approved exit signs that are internally or externally illuminated, photoluminescent or self-luminous, shall be provided in all corridors serving guest rooms of R-1 occupancies. The bottom of such signs shall not be less than 6 inches (152 mm) nor more than 8 inches (203 mm) above the floor level and shall indicate the path of exit travel. For exit and exit access doors, the sign shall be on the door or adjacent to the door with the closest edge of the sign with 8 inches (203 mm) of the door frame.

(15) In section 403.10.1.1 the exception is deleted.

(16) A new Section 403.9.1 is added as follows:

403.9.1 Elevator lobby. Elevators on all floors shall open into elevator lobbies that are separated from the remainder of the building, including corridors and other means of egress by smoke partitions complying with Section 710. Elevator lobbies shall have at least one means of egress complying with Chapter 10 and other provisions within the code. Elevator lobbies separated from a fire resistance rated corridor shall have walls of not less than one-hour fire resistance rating and openings shall conform to Section 714.

Exceptions:

1. Separations are not required from a street floor elevator lobby.

2. In atria complying with the provisions of Section 404 elevator lobbies are not required.

(17) A new section 419 is added as follows:

Section 419 Group E Child Day Care Centers. Group E child day care centers shall comply with Section 419.

419.1 Location at grade. Group E child day care centers shall be located at the level of exit discharge.

Exception: Child day care spaces for children over the age of 24 months may be located on the second floor of buildings equipped with automatic fire protection throughout and an automatic fire alarm system.

419.2 Egress. All Group E child day care spaces with an occupant load of 10 or more shall have a second means of egress. If the second means of egress is not an exit door leading directly to the exterior, the room shall have an emergency escape and rescue window complying with Section 1009.

(18) Section 706.3.5 is deleted and replaced with the following:

706.3.5 Separation of mixed occupancies. Where the provisions of Section 302.3.3 are applicable, the fire barrier separating mixed occupancies shall have a fire-resistance rating



of not less than that indicated in Section 302.3.3 based on the occupancies being separated.

(19) A new Section 706.3.6 is added as follows:

706.3.6. Single occupancy fire areas. The fire barrier separating a single occupancy into different fire areas shall have a fire resistance rating of not less than that indicated in Table 706.3.6.

TABLE 706.3.6  
FIRE-RESISTANCE RATING REQUIREMENTS  
FOR FIRE BARRIER ASSEMBLIES BETWEEN  
FIRE AREAS

OCCUPANCY GROUP	FIRE-RESISTANCE RATING (IN HOURS)
H-1, H-2	4
F-1, H-3, S-1	3
A, B, E, F-2, H-4, H-5, I	
M, R, S-2	2
U	1

(20) In Section 707.14.1 Exception 4 is deleted and replaced with the following:

4. See Section 403.9.1 for high rise buildings.

(21) Section 710.3 is deleted and replaced with the following:

710.3 Fire-resistance rating. The fire-resistance rating of floor and roof assemblies shall not be less than that required by the building type of construction. Where the floor assembly separates mixed occupancies, the assembly shall have a fire-resistance rating of not less than that required in Section 302.3.3 based on the occupancies being separated. Where the floor assembly separates a single occupancy into different fire areas, the assembly shall have a fire-resistance rating of not less than that required by Section 706.3.6. Floor assemblies separating dwelling units or guestrooms shall be a minimum of 1-hour fire-resistance-rated construction.

Exception: Dwelling unit and guestroom separations in buildings of Type IIB, IIIB and VB construction shall have fire-resistance ratings of not less than 1/2 hour in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

(22) In Section 902, the definition for record drawings is deleted and replaced with the following:

RECORD DRAWINGS. Drawings ("as built") that document all aspects of a fire protection system as installed.

(23) Section 903.2.5 is deleted and replaced with the following:

903.2.5 Group I. An automatic sprinkler system shall be provided throughout buildings with Group I fire areas. Listed quick response or residential sprinkler heads shall be installed in patient or resident sleeping areas.

(24) Section 903.2.9 Group R-4 is deleted and replaced with the following:

An automatic sprinkler system shall be provided throughout all buildings with Group R-4 fire areas that contain more than eight occupants.

Exception:

1. An automatic sprinkler system installed in accordance with Section 903.3.1.2 or Section 903.3.1.3. shall be allowed in Group R-4 facilities.

2. Buildings not more than 4,500 gross square feet and not containing more than 16 residents, provided the building is equipped throughout with an approved fire alarm system that is interconnected and receives its primary power from the building wiring and a commercial power system.

(25) Section 905.5.3 is deleted and replaced with the following:

905.5.3 Class II system 1-inch hose. A minimum 1-inch (25.4 mm) hose shall be permitted to be used for hose stations in light-hazard occupancies where investigated and listed for this service and where approved by the code official.

(26) In Section 1002, the definition for exit discharge is deleted and replaced with the following:

EXIT DISCHARGE. That portion of a means of egress system between the termination of an exit and a public way or safe dispersal area.

(27) In Section 1003.2.12.1 the exception is deleted and replaced with the following:

Exceptions:

1. For occupancies in Group R-3 and within individual dwelling units in occupancies in Group R-2, as applicable in Section 101.2, guards whose top rail serves as a handrail shall have a height not less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from the leading edge of the stair tread nosing.

2. For occupancies in Group R-3 and within individual dwelling units in occupancies in Group R-2, as applicable in section 101.2, guards shall form a protective barrier not less than 36 inches (914 mm).

(28) Section 1003.2.12.2 is deleted and replaced with the following:

1003.2.12.2 Opening limitations. Open guards shall have balusters or ornamental patterns such that a 4-inch-diameter (102 mm) sphere cannot pass through any opening up to a height of 34 inches (864 mm). From a height of 34 inches (864 mm) to

42 inches (1067 mm) above the adjacent walking surface, a sphere 8 inches (203 mm) in diameter shall not pass. For occupancies in Group R-3 and within individual dwelling units in occupancies in Group R-2, as applicable in Section 101.2, required guards shall not be constructed with horizontal rails or other ornamental pattern that results in a ladder effect.

Exceptions:

1. The triangular openings formed by the riser, tread and bottom rail at the open side of a stairway shall be of a maximum size such that a sphere of 6 inches (152 mm) in diameter cannot pass through the opening.

2. At elevated walking surfaces for access to and use of electrical, mechanical, or plumbing systems or equipment, guards shall have balusters or be of solid materials such that a sphere with a diameter of 21 inches (533 mm) cannot pass through any opening.

3. In occupancies in Group I-3, F, H or S, balusters, horizontal intermediate rails or other construction shall not permit a sphere with a diameter of 21 inches (533 mm) to pass through any opening.

4. In assembly seating areas, guards at the end of aisles where they terminate at a fascia of boxes, balconies, and galleries shall have balusters or ornamental patterns such that a 4-inch-diameter (102 mm) sphere cannot pass through any opening up to a height of 26 inches (660 mm). From a height of 26 inches (660 mm) to 42 inches (1067 mm) above the adjacent walking surfaces, a sphere 8 inches (203 mm) in diameter shall not pass.

(29) Section 1003.3.3.3, Exception #5 is deleted and replaced with the following:

5. In occupancies in Group R-3, as applicable in Section 101.2, within dwelling units in occupancies in Group R-2, as applicable in Section 101.2, and in occupancies in Group U, which are accessory to an occupancy in Group R-3, as applicable in Section 101.2, the maximum riser height shall be 8 inches (203 mm) and the minimum tread depth shall be 9 inches (229 mm). A nosing not less than 0.75 inch (19.1 mm) but not more than 1.25 inches (32 mm) shall be provided on stairways with solid risers where the tread depth is less than 10 inches (254 mm).

(30) Section 1003.3.3.11 Exemption #4 is deleted and replaced with the following:

4. In occupancies in Group R-3, as applicable in Section 101.2 and in occupancies in Group U, which are accessory to an occupancy in Group R-3, as applicable in Section 101.2, handrails shall be provided on at least one side of stairways consisting of four or more risers.

(31) Section 1003.3.3.11.3 is amended to include the following exception at the end of the section:

Exception. Non-circular handrails serving an individual unit in a Group R-1, Group R-2 or Group R-3 occupancy shall be permitted to have a maximum cross sectional dimension of 3.25 inches (83 mm) measured 2 inches (51 mm) down from the top of the crown. Such handrail is required to have an indentation on both sides between 0.625 inch (16 mm) and 1.5 inches (38 mm) down from the top or crown of the cross section. The indentation shall be a minimum of 0.25 inch (6 mm) deep on each side and shall be at least 0.5 (13 mm) high. Edges within the handgrip shall have a minimum radius of 0.0625 inch (2 mm). The handrail surface shall be smooth with no cusps so as to avoid catching clothing or skin.

(32) In Section 1004.3.2.5 Exception 2 is deleted.

(33) New Sections 1006.2.3, 1006.2.3.1 and 1006.2.3.2 are added as follows:

1006.2.3 Safe dispersal areas. Where approved by the code official, the exit discharge is permitted to lead to a safe dispersal area on the same property as the structure being discharged. The proximity and size of such safe dispersal area shall be based on such factors as the occupant load served, the mobility of occupants, the type of construction of the building, the fire protection systems installed in the building, the height of the building and the degree of hazard of the occupancy. In any case, the entire safe dispersal area shall be located not less than 50 feet (15 420 mm) from the structure served.

1006.2.3.1 School ground fences and gates. School grounds shall be permitted to be fenced and gates therein equipped with locks, provided safe dispersal areas are located between the school and fence with the entire dispersal area no less than 50 feet (15 420mm) from school buildings. Safe dispersal area capacity shall be determined by providing a minimum of 3 square feet (0.28 m<sup>2</sup>) of net clear area per occupant.

1006.2.3.2 Reviewing stands, grandstands and bleachers. Safe dispersal areas serving reviewing stands, grandstands and bleachers shall accommodate a number of persons equal to the total capacity of the stand or building served. Safe dispersal area capacity shall be determined by providing a minimum of 3 square feet (0.28 m<sup>2</sup>) of net clear area per occupant.

(34) Section 1109.7 of Chapter 11 in the 2001 Supplement to the International Building Code is deleted and replaced with the following:

Section 1109.7 Lifts. Platform (wheelchair) lifts shall not be a part of a required accessible route in new construction. Platform (wheelchair) lifts shall be installed in accordance with ASME A18.1.

Exceptions: Platform (wheelchair) lifts are permitted for:

1. An accessible route to a performing area and speaker's

platforms in occupancies in Group A.

2. An accessible route to wheelchair spaces required to comply with the wheelchair space dispersion and line-of-sight requirements of Section 1108.2.2.

3. An accessible route to spaces that are not open to the general public with an occupant load of not more than five.

4. An accessible route within a dwelling or sleeping unit.

5. An accessible route to wheelchair seating spaces located in outdoor dining terraces in A-5 occupancies where the means of egress from the dining terrace to a public way is open to the outdoors.

6. An accessible route to raised judges' benches, clerks' stations, jury boxes, witness stands and other raised or depressed areas in a court.

7. An accessible route where existing exterior site constraints make use of a ramp or elevator infeasible.

8. Wheelchair access where an accessible route is not required per the exceptions to Section 1104.4 and/or Section 1107.4.

All platform (wheelchair) lifts shall be capable of independent operation without a key.

Standby power shall be provided for platform lifts permitted to serve as part of the accessible means of egress.

(35) Section 1207.2 is deleted and replaced with the following:

1207.2 Minimum ceiling heights. Occupiable spaces, habitable spaces and corridors shall have a ceiling height of not less than 7 feet 6 inches (2286 mm). Rooms in one- and two-family dwellings, bathrooms, toilet rooms, kitchens, storage rooms and laundry rooms shall be permitted to have a ceiling height of not less than 7 feet (2134 mm).

Exceptions:

1. In one- and two-family dwellings, beams or girders spaced not more than 4 feet (1219 mm) on center or projecting not more than 6 inches (152 mm) below the required ceiling height.

2. Basement rooms without habitable spaces in one- and two-family dwellings having a ceiling height of not less than 6 feet 8 inches (2033mm) with not less than 6 feet 4 inches (1932 mm) of clear height under beams, girders, ducts and similar obstructions.

3. If any room in a building has a sloping ceiling, the prescribed ceiling height for the room is required in one-half the area thereof. Any portion of the room measuring less than 5 feet (1524 mm) from the finished floor to the finished ceiling shall not be included in any computation of the minimum area thereof.

4. Mezzanines constructed in accordance with Section 505.1.

(36) Section 1207.3 is deleted and replaced with the following:

1207.3 Room area. Every dwelling unit shall have at least one room that shall have not less than 120 square feet (11.2 m<sup>2</sup>) of net floor area. Other habitable rooms shall have a net floor area of not less than 70 square feet (6.5 m<sup>2</sup>).

Exception: Every kitchen in a one- and two-family dwelling shall have not less than 50 square feet (4.64 m<sup>2</sup>) of gross floor area.

(37) Section 1207.4 subparagraph 1 is deleted and replaced with the following:

1. The unit shall have a living room of not less than 165 square feet (15.3 m) of floor area. An additional 100 square feet (9.3 m) of floor area shall be provided for each occupant of such unit in excess of two.

(38) Section 1405.3 is deleted and replaced with the following:

1405.3 Flashing. Flashing shall be installed in such a manner as to prevent moisture from entering the top and sides of exterior window and door openings. Flashing shall be installed in such a manner as to prevent moisture from entering at the intersection of chimneys or other masonry construction with frame or stucco walls, with projecting flanges on both sides under stucco copings; under and at the ends of masonry, wood or metal copings and sills, continuously above projecting wood trim; at the intersection of exterior walls and porches and decks; at wall and roof intersections with the step-flashing methods; at built-in gutters; and at the intersection of foundation to stucco, masonry, siding, or brick veneer with an approved corrosive-resistance flashing with a 1/2" drip leg extending past exterior side of the foundation.

(38) Section 1604.5, footnote "c" is added to Table 1604.5 Classification of Buildings and Other Structures for Importance Factors:

c. For determining "W" per sections 1616.4.1, 1617.4.1, 1617.5.1, or 1618.4, the Snow Factor I, may be taken as 1.0.

(39) In Section 1605.2.1, the formula shown as "f<sub>2</sub> = 0.2 for other roof configurations" is deleted and replaced with the following:

f<sub>2</sub> = 0.20 + .025(A-5) for other configurations where roof snow load exceeds 30 psf

f<sub>2</sub> = 0 for roof snow loads of 30 psf (1.44kN/m<sup>2</sup>) or less.

Where A = Elevation above sea level at the location of the structure (ft/1000).

(40) In Section 1605.3.1 and section 1605.3.2, Exception number 2 in each section is deleted and replaced with the following:

Flat roof snow loads of 30 pounds per square foot (1.44 kNm<sup>2</sup>) or less need not be combined with seismic loads. Where flat roofs exceed 30 pounds per square foot (1.44 kNm<sup>2</sup>), the snow loads may be reduced in accordance with the following in load combinations including both snow and seismic loads.

$$W_s = (0.20 + 0.025(A-5))P_f$$

Where

$W_s$  = Weight of snow to be included, psf

$A$  = Elevation above sea level at the location of the structure (ft/1000)

$P_f$  = Design roof snow load, psf

(41) In Table 1607.1 number 27 is deleted and replaced with the following:

TABLE 1607.1 NUMBER 27

Occupancy or Use	Uniform (psf)	Concentrated (lbs)
27. Residential		
Group R-3 as applicable in Section 101.2		-
Uninhabitable attics without storage	10 <sup>i</sup>	
Uninhabitable attics with storage	20	
Habitable attics and sleeping areas	30	
All other areas except balconies and decks	40	
Hotels and multifamily dwellings		
Private rooms	40	
Public rooms & corridors serving them	100	

(42) In Notes to Table 1607.1, Note i is added as follows:  
i. This live load need not be considered as acting simultaneously with other live loads imposed upon the ceiling framing or its supporting structure.

(43) Section 1608.1 is deleted and replaced with the following:

Except as modified in section 1608.1.1, design snow loads shall be determined in accordance with Section 7 of ASCE 7, but the design roof load shall not be less than that determined by Section 1607.

(44) Section 7.4.5 of Section 7 of ASCE 7 referred to in Section 1608.1 of the IBC is deleted and replaced with the following:

Section 7.4.5 Ice Dams and Icicles Along Eaves. Where ground snow loads exceed 75 psf, eaves shall be capable of sustaining a uniformly distributed load of  $2p_f$  on all overhanging

portions. No other loads except dead loads shall be present on the roof when this uniformly distributed load is applied. All building exits under down-slope eaves shall be protected from sliding snow and ice.

(45) Section 1608.1.1 is added as follows:

1608.1.1 Utah Snow Loads. The ground snow load,  $P_g$ , to be used in the determination of design snow loads for buildings and other structures shall be determined by using the following formula:  $P_g = (P_o^2 + S^2(A-A_o)^2)^{0.5}$  for  $A$  greater than  $A_o$ , and  $P_g = P_o$  for  $A$  less than or equal to  $A_o$ .

WHERE

$P_g$  = Ground snow load at a given elevation (psf)

$P_o$  = Base ground snow load (psf) from Table No. 1608.1.1(a)

$S$  = Change in ground snow load with elevation (psf/100 ft.)

From Table No. 1608.1.1(a)

$A$  = Elevation above sea level at the site (ft./1000)

$A_o$  = Base ground snow elevation from Table 1608.1.1(a)  
(ft./1000)

The building official may round the roof snow load to the nearest 5 psf. The ground snow load,  $P_g$ , may be adjusted by the building official when a licensed engineer or architect submits data substantiating the adjustments. A record of such action together with the substantiating data shall be provided to the division for a permanent record.

The building official may also directly adopt roof snow loads in accordance with Table 1608.1.1(b), provided the site is no more than 100 ft. higher than the listed elevation.

Where the minimum roof live load in accordance with section 1607.11 is greater than the design roof snow load, such roof live load shall be used for design, however, it shall not be reduced to a load lower than the design roof snow load. Drifting need not be considered for roof snow loads less than 20 psf.

(46) Table 1608.1.1(a) and Table 1608.1.1(b) are added as follows:

TABLE NO. 1608.1.1(a)  
STATE OF UTAH - REGIONAL SNOW LOAD FACTORS

COUNTY	$P_o$	$S$	$A_o$
Beaver	43	63	6.2
Box Elder	43	63	5.2
Cache	50	63	4.5
Carbon	43	63	5.2
Daggett	43	63	6.5
Davis	43	63	4.5
Duchesne	43	63	6.5



Emery	43	63	6.0
Garfield	43	63	6.0
Grand	36	63	6.5
Iron	43	63	5.8
Juab	43	63	5.2
Kane	36	63	5.7
Millard	43	63	5.3
Morgan	57	63	4.5
Piute	43	63	6.2
Rich	57	63	4.1
Salt Lake	43	63	4.5
San Juan	43	63	6.5
Sanpete	43	63	5.2
Sevier	43	63	6.0
Summit	86	63	5.0
Tooele	43	63	4.5
Uintah	43	63	7.0
Utah	43	63	4.5
Wasatch	86	63	5.0
Washington	29	63	6.0
Wayne	36	63	6.5
Weber	43	63	4.5

TABLE NO. 1608.1.1(b)  
RECOMMENDED SNOW LOADS FOR SELECTED UTAH CITIES AND TOWNS

		Roof Snow Load (PSF)	Ground Snow Load (PSF)
Beaver County			
Beaver	5920 ft.	43	62
Box Elder County			
Brigham City	4300 ft.	30	43
Tremonton	4290 ft.	30	43
Cache County			
Logan	4530 ft.	35	50
Smithfield	4595 ft.	35	50
Carbon County			
Price	5550 ft.	30	43
Daggett County			
Manila	5377 ft.	30	43
Davis County			
Bountiful	4300 ft.	30	43
Farmington	4270 ft.	30	43
Layton	4400 ft.	30	43
Fruit Heights	4500 ft.	40	57
Duchesne County			

Duchesne	5510 ft.	30	43
Roosevelt	5104 ft.	30	43
Emery County			
Castledale	5660 ft.	30	43
Green River	4070 ft.	25	36
Garfield County			
Panguitch	6600 ft.	30	43
Grand County			
Moab	3965 ft.	25	36
Iron County			
Cedar City	5831 ft.	30	43
Juab County			
Nephi	5130 ft.	30	43
Kane County			
Kanab	5000 ft.	25	36
Millard County			
Millard	5000 ft.	30	43
Delta	4623 ft.	30	43
Morgan County			
Morgan	5064 ft.	40	57
Piute County			
Piute	5996 ft.	30	43
Rich County			
Woodruff	6315 ft.	40	57
Salt Lake County			
Murray	4325 ft.	30	43
Salt Lake City	4300 ft.	30	43
Sandy	4500 ft.	30	43
West Jordan	4375 ft.	30	43
West Valley	4250 ft.	30	43
San Juan County			
Blanding	6200 ft.	30	43
Monticello	6820 ft.	35	50
Sanpete County			
Fairview	6750 ft.	35	50
Mt. Pleasant	5900 ft.	30	43
Manti	5740 ft.	30	43
Ephraim	5540 ft.	30	43
Gunnison	5145 ft.	30	43
Sevier County			
Salina	5130 ft.	30	43
Richfield	5270 ft.	30	43
Summit County			
Coalville	5600 ft.	60	86
Kamas	6500 ft.	70	100
Park City	6400 ft.	85	121
Summit Park	7200 ft.	90	128
Tooele County			

Tooele	5100 ft.	30	43
Uintah County			
Vernal	5280 ft.	30	43
Utah County			
American Fork	4500 ft.	30	43
Orem	4650 ft.	30	43
Pleasant Grove	5000 ft.	30	43
Provo	5000 ft.	30	43
Spanish Fork	4720 ft.	30	43
Wasatch County			
Heber	5630 ft.	60	86
Washington County			
Central	5209 ft.	25	36
Dameron	4550 ft.	25	36
Leeds	3460 ft.	20	29
Rockville	3700 ft.	25	36
Santa Clara	2850 ft.	15 (1)	21
St. George	2750 ft.	15 (1)	21
Wayne County			
Loa	7080 ft.	30	43
Hanksville	4308 ft.	25	36
Weber County			
North Ogden	4500 ft.	40	57
Ogden	4350 ft.	30	43

#### NOTES

(1) The IBC requires a minimum live load - See 1607.11.2.

(47) Section 1608.2 is deleted and replaced with the following:

1608.2 Ground Snow Loads. The ground snow loads to be used in determining the design snow loads for roofs in states other than Utah are given in Figure 1608.2 for the contiguous United States and Table 1608.2 for Alaska. Site-specific case studies shall be made in areas designated CS in figure 1608.2. Ground snow loads for sites at elevations above the limits indicated in Figure 1608.2 and for all sites within the CS areas shall be approved. Ground snow load determination for such sites shall be based on an extreme value statistical analysis of data available in the vicinity of the site using a value with a 2-percent annual probability of being exceeded (50-year mean recurrence interval). Snow loads are zero for Hawaii, except in mountainous regions as approved by the building official.

(48) Section 1614.2 is deleted and replaced with the following:

1614.2 Change in Occupancy. When a change of occupancy results in a structure being reclassified to a higher Seismic Use Group, or when such change of occupancy results in a design

occupant load increase of 100% or more, the structure shall conform to the seismic requirements for a new structure.

Exceptions:

1. This is not required if the design occupant load increase is less than 25 persons and the Seismic Use Group does not change.

2. Specific detailing provisions required for a new structure are not required to be met where it can be shown an equivalent level of performance and seismic safety contemplated for a new structure is obtained. Such analysis shall consider the regularity, overstrength, redundancy and ductility of the structure within the context of the specific detailing provided. Alternatively, the building official may allow the structure to be upgraded in accordance with the latest edition of the "Guidelines for Seismic Rehabilitation of Existing Buildings" or another nationally recognized standard for retrofit of existing buildings.

(49) In Section 1616.4.1, Definition of W, Item 4 is deleted and replaced with the following:

4. Roof snow loads of 30 psf or less need not be included. Where the roof snow load exceeds 30 psf, the snow load shall be included, but may be adjusted in accordance with the following formula:  $W_s = (0.20 + 0.025(A-5))P_f$

WHERE:

$W_s$  = Weight of snow to be included in seismic calculation;

A = Elevation above sea level at the location of the structure (ft/1000)

$P_f$  = Design roof snow load, psf

For the purposes of this section, snow load shall be assumed uniform on the roof footprint without including the effects of drift or sliding.

(50) In Section 1617.2.2, the fourth definition of  $r_{maxi}$  is deleted and replaced with the following:

=For shear walls,  $r_{maxi}$  shall be taken as the maximum value of the product of the shear in the wall or wall pier and  $10/l_w$  ( $3.3/l_w$  for SI), divided by the story shear, where  $l_w$  is the length of the wall or wall pier in feet (m). The ratio  $10/l_w$  need not be taken greater than 1.0 for buildings of light frame construction.

(51) In Section 1617.4.1, Definition of W, Item 4 is deleted and replaced with the following:

4. Roof snow loads to be included shall be as outlined in section 1616.4.1, Definition of W, Item 4, as amended.

(52) In Section 1617.5.1, Definition of W, Item 4 is deleted and replaced with the following:

4. Roof snow loads to be included shall be as outlined in section 1616.4.1, Definition of W, Item 4, as amended.

(53) In Section 1618.4, Definition of W, Item 4 is deleted and replaced with the following:

4. Roof snow loads to be included shall be as outlined in section 1616.4.1, Definition of W, Item 4, as amended.

(54) Section 1805.5 is deleted and replaced with the following:

1805.5 Foundation walls. Concrete and masonry foundation walls shall be designed in accordance with Chapter 19 or 21. Foundation walls that are laterally supported at the top and bottom and within the parameters of Tables 1805.5(1) through 1805.5(4) are permitted to be designed and constructed in accordance with Sections 1805.5.1 through 1805.5.4 and 1805.5.8 through 1805.5.8.2. Concrete foundation walls may also be constructed in accordance with Section 1805.5.9.

(55) New Sections 1805.5.8, 1805.5.8.1 1805.5.8.2 and 1805.5.9 are added as follows:

1805.5.8 Seismic requirements. Tables 1805.5(1) through 1805.5(4) shall be subject to the following limitations based on the seismic design category assigned to the structure as defined in Section 1616.

1805.5.8.1 Seismic requirements for concrete foundation walls. Concrete foundation walls constructed using Tables 1805.5(1) through 1805.5(4) shall be subject to the following:

1. Seismic Design Category A and B. Provide two No. 5 bars around window and door openings. Such bars shall extend at least 24 inches (610 mm) beyond the corners of the openings.

2. Seismic Design Category C. Tables shall not be used except as permitted for plain concrete members in Section 1910.4.

3. Seismic Design Categories D, E and F. Tables shall not be used except as allowed for plain concrete members in ACI 318, Section 22.10.

1805.5.8.2 Seismic requirements for masonry foundation walls. Masonry foundation walls constructed using Tables 1805.5(1) through 1805.5(4) shall be subject to the following:

1. Seismic Design Category A and B. No additional seismic requirements.

2. Seismic Design Category C. The requirements of Section 2106.4 shall apply.

3. Seismic Design Category D. The requirements of Section 2106.5 shall apply.

4. Seismic Design Categories E and F. The requirements of Section 2106.6 shall apply.

1805.5.9 Empirical foundation design. Group R, Division 3 Occupancies three stories or less in height, and Group U Occupancies, which are constructed in accordance with Section 2308, or with other methods employing repetitive wood-frame construction or repetitive cold-formed steel structural member

construction, shall be permitted to have concrete foundations constructed in accordance with Table 1805.5.9.

(56) Table 1805.5.9 is added as follows:

Table 1805.5.9, entitled "Empirical Foundation Walls, dated September 1, 2002, published by the Department of Commerce, Division of Occupational and Professional Licensing is hereby adopted and incorporated by reference. Table 1805.5.9 identifies foundation requirements for empirical walls.

(57) Table 2305.3.3 is deleted and replaced with the following:

TABLE 2305.3.3  
MAXIMUM SHEAR WALL ASPECT RATIOS

TYPE	MAXIMUM HEIGHT-WIDTH RATIO
Wood structural panels or particleboard, nailed edges	For wind: 3 1/2:1 For seismic: 2:1a
Diagonal sheathing, single Fiberboard	2:1 1 1/2:1

a. For design to resist seismic forces, shear wall aspect ratios greater than 2:1, but not exceeding 3 1/2:1, are permitted provided the allowable shear capacities in Table 2306.4.1 are multiplied by 2w/h.

(58) A new section 2306.1.4 is added as follows:

2306.1.4 The allowable stress increase of 1.15 for snow load, shown in Table 2.3.2, Load Duration Factors,  $C_d$ , of the National Design Specifications, shall not be utilized at elevations above 5,000 feet (1524 M).

(59) Section 2308.6 is deleted and replaced with the following:

2308.6 Foundation plates or sills. Foundations and footings shall be as specified in Chapter 18. Foundation plates or sills resting on concrete or masonry foundations shall comply with Section 2304.3.1 and shall be bolted or anchored by one of the following:

1. Foundation plates or sill shall be bolted or anchored to the foundation with not less than 1/2 inch (12.7 mm) diameter steel bolts or approved anchors. Bolts shall be embedded at least 7 inches (178 mm) into concrete or masonry, and spaced not more than 6 feet (1829 mm) apart. There shall be a minimum of two bolts or anchor straps per piece with one bolt or anchor strap located not more than 12 inches (305 mm) or less than 4 inches (102 mm) from each end of each piece.

2. Foundation plates or sills shall be bolted or anchored to the foundation with not less than 1/2 inch (12.7 mm) diameter steel bolts or approved anchors. Bolts shall be embedded at least 7 inches (178 mm) into concrete or masonry, and spaced not more than 32 inches (816 mm) apart. There shall be a minimum of two bolts or anchor straps per piece located not less than 4 inches (102 mm) from each end of each piece.

A properly sized nut and washer shall be tightened on each bolt to the plate.

(60) A new section 2902.1.1 is added as follows:

2902.1.1 Unisex toilets and bath fixtures. Fixtures located within unisex toilet and bathing rooms complying with section 2902 are permitted to be included in determining the minimum number of fixtures for assembly and mercantile occupancies.

(61) Section 3006.5 Shunt Trip, the following exception is added:

Exception: Hydraulic elevators and roped hydraulic elevators with a rise of 50 feet or less.

(62) In Section 3104.2, a second exception is added as follows:

2. For the purposes of calculating the number of Type B units required by Chapter 11, structurally connected buildings and buildings with multiple wings shall be considered one structure.

(63) A new section 3402.5 is added as follows:

3402.5 Parapets and other appendages. Building constructed prior to 1975 with parapet walls, cornices, spires, towers, tanks, signs, statuary and other appendages shall have such appendages evaluated by a licensed engineer to determine resistance to design loads specified in this code when said building is undergoing reroofing, or alteration of or repair to said feature.

EXCEPTION: Group R-3 and U occupancies.

Original Plans and/or structural calculations may be utilized to demonstrate that the parapet or appendages are structurally adequate. When found to be deficient because of design or deteriorated condition, the engineer shall prepare specific recommendations to anchor, brace, reinforce or remove the deficient feature.

The maximum height of an unreinforced masonry parapet above the level of the diaphragm tension anchors or above the parapet braces shall not exceed one and one-half times the thickness of the parapet wall. The parapet height may be a maximum of two and one-half times its thickness in other than Seismic Design Categories D, E, or F. If the required parapet height exceeds this maximum height, a bracing system designed using the coefficients specified in Table 1621.2 shall support the top of

the parapet. When positive diaphragm connections are absent, tension roof anchors shall be added. Approved alternative methods of equivalent strength will be considered when accompanied by engineer sealed drawings, details and calculations.

(64) Section 3408.1 is deleted and replaced with the following:

3408.1 Scope: The provision of sections 3408.2 through 3408.5 apply to maintenance, change of occupancy, additions and alterations to existing buildings, including those identified as historic buildings.

Exceptions:

1. When maintenance, additions or alteration occur, Type B dwelling units required by section 1107.5.4 are not required to be provided in existing buildings and facilities.

2. When a change of occupancy in a building or portion of a building results in multiple dwelling units as determined in section 1107.5.4, not less than 20 percent of the dwelling units shall be Type B dwelling units. These dwelling units may be located on any floor of the building provided with an accessible route. Two percent, but not less than one, of the dwelling units shall be Type A dwelling units.

(65) Referenced standards number 1557-91 under ASTM in chapter 35 is deleted and replaced with the following:

TABLE

Standard Number	Title	Code Section
D1557-91 E01	Laboratory Compaction	1508.15.2
	Characteristics of soil	K1.1.2,
	using Modified Effort	K1.7.5

(66) A new appendix K, Grading, is added as follows:

APPENDIX K - GRADING

K1.1 GENERAL

K1.1.1 Scope. The provisions of this chapter apply to grading, excavation and earthwork construction, including fills and embankments. Where conflicts occur between the technical requirements of this chapter and the soils report, the soils report shall govern.

K1.1.2 Standards. The following standards of quality shall apply:

1. ASTM D1557-91 E01, Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lb/ft).

K1.2 DEFINITIONS

K1.2.1 Definitions. For the purposes of this appendix chapter, the terms, phrases and words listed in this section and their derivatives shall have the indicated meanings.



BENCH. A relatively level step excavated into earth material on which fill is to be placed.

COMPACTION. The densification of a fill by mechanical means.

CUT. See Excavation.

DOWN DRAIN. A device for collecting water from a swale or ditch located on or above a slope, and safely delivering it to an approved drainage facility.

EROSION. The wearing away of the ground surface as a result of the movement of wind, water or ice.

EXCAVATION. The removal of earth material by artificial means, also referred to as a cut.

FILL. Deposition of earth materials by artificial means.

GRADE. The vertical location of the ground surface.

GRADE, EXISTING. The grade prior to grading.

GRADE, FINISHED. The grade of the site at the conclusion of all grading efforts.

GRADING. An excavation or fill or combination thereof.

KEY. A compacted fill placed in a trench excavated in earth material beneath the toe of a slope.

SLOPE. An inclined surface, the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

TERRACE. A relatively level step constructed in the face of a graded slope for drainage and maintenance purposes.

#### K1.3 PERMITS REQUIRED

K1.3.1 Permits required. Except as exempted in Section K1.3.2, no grading shall be performed without first having obtained a permit therefor from the building official. A grading permit does not include the construction of retaining walls or other structures.

K1.3.2 Exemptions. A grading permit shall not be required for the following:

1. Grading in an isolated, self-contained area, provided there is no danger to the public, and that such grading will not adversely affect adjoining properties.

2. Excavation for construction of a structure permitted under this code.

3. Cemetery graves.

4. Refuse disposal sites controlled by other regulations.

5. Excavations for wells, or trenches for utilities.

6. Mining, quarrying, excavating, processing or stockpiling rock, sand, gravel, aggregate or clay controlled by other regulations, provided such operations do not affect the lateral support of, or significantly increase stresses in, soil on adjoining properties.

7. Exploratory excavations performed under the direction of a registered design professional for the sole purpose of preparing a soils report.

Exemption from the permit requirements of this appendix shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. The listed exemptions shall not apply to areas located in a floodway or floodplain regulated under Appendix G.

#### K1.4 PERMIT APPLICATION AND SUBMITTALS

K1.4.1 Submittal requirements. In addition to the provisions of Section 105.3, the applicant shall state the estimated quantities of excavation and fill.

K1.4.2 Site plan requirements. In addition to the provisions of Section 106, a grading plan shall show the existing grade and finished grade in contour intervals of sufficient clarity to indicate the nature and extent of the work and show in detail that it complies with the requirements of this code. The plans shall show the existing grade on adjoining properties in sufficient detail to identify how grade changes will conform to the requirements of this code.

K1.4.3 Soils report. A soils report prepared by registered design professionals shall be provided which shall identify the nature and distribution of existing soils; conclusions and recommendations for grading procedures; soil design criteria for any structures or embankments required to accomplish the proposed grading; and, where necessary, slope stability studies, and recommendations and conclusions regarding site geology.

Exception: A soils report is not required where the building official determines that the nature of the work applied for is such that a report is not necessary.

K1.4.4 Liquefaction study. For sites with mapped maximum considered earthquake spectral response accelerations at short period ( $S_s$ ) greater than 0.5g as determined by Section 1615, a study of the liquefaction potential of the site shall be provided, and the recommendations incorporated in the plans.

Exception: A liquefaction study is not required where the building official determines from established local data that the liquefaction potential is low.

#### K1.5 INSPECTIONS

K1.5.1 General. Inspections shall be governed by Section 109 of this code.

K1.5.2 Special inspections. The special inspection requirements of Section 1704.7 shall apply to work performed under a grading permit where required by the building official.

#### K1.6 EXCAVATIONS

K1.6.1 Maximum slope. The slope of cut surfaces shall be no steeper than is safe for the intended use, and shall be no steeper than 2 horizontal to 1 vertical (50%) unless the applicant furnishes a soils report justifying a steeper slope.

Exceptions:

1. A cut surface may be at a slope of 1.5 horizontal to 1 vertical (67%) provided that all the following are met:

(a) it is not intended to support structures or surcharges;

(b) it is adequately protected against erosion;

(c) it is no more than 8 feet (2438 mm) in height; and

(d) it is approved by the building official.

2. A cut surface in bedrock shall be permitted to be at a slope of 1 horizontal to 1 vertical (100%)

#### K1.7 FILLS

K1.7.1 General. Unless otherwise recommended in the soils report, fills shall conform to provisions of this section.

K1.7.2 Surface preparation. The ground surface shall be prepared to receive fill by removing vegetation, topsoil and other unsuitable materials, and scarifying the ground to provide a bond with the fill material.

K1.7.3 Benching. Where existing grade is at a slope steeper than 5 horizontal to 1 vertical (20%) and the depth of the fill exceeds five feet (1524 mm) benching shall be provided in accordance with Figure K1.7.3 dated July 1, 2001, published by State and Local Building Codes Amendments, Department of Commerce, Division of Occupational and Professional Licensing, which is hereby adopted and incorporated by reference. A key shall be provided which is at least 10 feet (3048 mm) in width and two feet (610 mm) in depth.

K1.7.4 Fill material. Fill material shall not include organic, frozen or other deleterious materials. No rock or similar irreducible material greater than 12 inches (305mm) in any dimension shall be included in fills.

K1.7.5 Compaction. All fill material shall be compacted to 90% of maximum density as determined by ASTM D1557, Modified Proctor, in lifts not exceeding 12 inches (305 mm) in depth.

K1.7.6 Maximum slope. The slope of fill surfaces shall be no steeper than is safe for the intended use. Fill slopes steeper than 2 horizontal to 1 vertical (50%) shall be justified by soils reports or engineering data.

#### K1.8 SETBACKS

K1.8.1 General. Cut and fill slopes shall be set back from the property lines in accordance with this section. Setback dimensions shall be measured perpendicular to the property line and shall be as shown in Figure K1.8.1, dated July 1, 2001, published by State and Local Building Codes Amendments, Department of Commerce, Division of Occupational and

Professional Licensing, which is hereby adopted and incorporated by reference. unless substantiating data is submitted justifying reduced setbacks.

K1.8.2 Top of slope. The setback at the top of a cut slope shall not be less than that shown in Figure K1.8.1, or than is required to accommodate any required interceptor drains, whichever is greater.

K1.8.3 Slope protection. Where required to protect adjacent properties at the toe of a slope from adverse effects of the grading, additional protection, approved by the building official, shall be included. Such protection may include but shall not be limited to:

1. Setbacks greater than those required by Figure K1.8.1.
2. Provisions for retaining walls or similar construction.
3. Erosion protection of the fill slopes.
4. Provision for the control of surface waters.

#### K1.9 DRAINAGE AND TERRACING

K1.9.1 General. Unless otherwise recommended by a registered design professional, drainage facilities and terracing shall be provided in accordance with the requirements of this section.

Exception: Drainage facilities and terracing need not be provided where the ground slope is not steeper than 3 horizontal to 1 vertical (33%).

K1.9.2 Terraces. Terraces at least six feet (1829 mm) in width shall be established at not more than 30-foot (9144 mm) vertical intervals on all cut or fill slopes to control surface drainage and debris. Suitable access shall be provided to allow for cleaning and maintenance.

Where more than two terraces are required, one terrace, located at approximately mid-height, shall be at least 12 feet (3658 mm) in width.

Swales or ditches shall be provided on terraces. They shall have a minimum gradient of 20 horizontal to 1 vertical (5%) and shall be paved with concrete not less than three inches (76 mm) in thickness, or with other materials suitable to the application. They shall have a minimum depth of 12 inches (305 mm) and a minimum width of five feet (1524 mm).

A single run of swale or ditch shall not collect runoff from a tributary area exceeding 13,500 square feet (1256 m<sup>2</sup>) (projected) without discharging into a down drain.

K1.9.3 Interceptor drains. Interceptor drains shall be installed along the top of cut slopes receiving drainage from a tributary width greater than 40 feet, measured horizontally. They shall have a minimum depth of one foot (305 mm) and a minimum width of three feet (915 mm). The slope shall be approved by the building official, but shall not be less than 50 horizontal to 1 vertical (2%). The drain shall be paved with

concrete not less than three inches (76 mm) in thickness, or by other materials suitable to the application. Discharge from the drain shall be accomplished in a manner to prevent erosion and shall be approved by the building official.

K1.9.4 Drainage across property lines. Drainage across property lines shall not exceed that which existed prior to grading. Excess or concentrated drainage shall be contained on site or directed to an approved drainage facility. Erosion of the ground in the area of discharge shall be prevented by installation of non-erosive down drains or other devices.

#### K1.10 EROSION CONTROL

K1.10.1 General. The faces of cut and fill slopes shall be prepared and maintained to control erosion. This control shall be permitted to consist of effective planting.

Exception: Erosion control measures need not be provided on cut slopes not subject to erosion due to the erosion-resistant character of the materials.

Erosion control for the slopes shall be installed as soon as practicable and prior to calling for final inspection.

K1.10.2 Other devices. Where necessary, check dams, cribbing, riprap or other devices or methods shall be employed to control erosion and provide safety.

### **R156-56-711. Statewide Amendments to the IRC.**

The following are adopted as amendments to the IRC to be applicable statewide:

(1) All amendments to the IBC under Section R156-56-704, local amendments under Section R156-56-705, the NEC under Section R156-56-706, the IPC under Section R156-56-707, the IMC under Section R156-56-708, the IFGC under Section R156-56-709 and the IECC under Section R156-56-710 which may be applied to detached one and two family dwellings and multiple single family dwellings shall be applicable to the corresponding provisions of the IRC. All references to the International Electrical Code are deleted and replaced with the National Electrical Code adopted under Section R156-56-701(1)(b). Should there be any conflicts between the NEC and the IRC, the NEC shall prevail.

(2) In Section 109, a new section is added as follows:

R109.1.5 Weather-resistive barrier and flashing inspections. After the roof, masonry, all framing, firestopping, draftstopping and bracing are in place; and after the plumbing, mechanical and electrical rough inspections are approved; and before brick veneer, masonry or stucco is installed on the exterior of a structure, an inspection shall be made of the weather-resistive barrier as required by Section R703.1 and flashings as required by Section R703.8 to prevent water from entering the weather-resistant exterior wall envelope.

The remaining sections are renumbered as follows:

R109.1.6 Other inspections

R109.1.6.1 Fire-resistance-rated construction inspection

R109.1.7 Final inspection.

(2) In Section R202, the definition of "Backsiphonage" is deleted and replaced with the following:

BACKSIPHONAGE: The backflow of potentially contaminated, polluted or used water into the potable water system as a result of the pressure in the potable water system falling below atmospheric pressure of the plumbing fixtures, pools, tanks or vats connected to the potable water distribution piping.

(3) In Section R202 the following definition is added:

CERTIFIED BACKFLOW PREVENTER ASSEMBLY TESTER: A person who has shown competence to test Backflow prevention assemblies to the satisfaction of the authority having jurisdiction under Subsection 19-4-104(4), Utah Code Ann. (1953), as amended.

(4) In Section R202 the definition of "Cross Connection" is deleted and replaced with the following:

CROSS CONNECTION. Any physical connection or potential connection or arrangement between two otherwise separate piping systems, one of which contains potable water and the other either water of unknown or questionable safety or steam, gas or chemical, whereby there exists the possibility for flow from one system to the other, with the direction of flow depending on the pressure differential between the two systems(see "Backflow, Water Distribution").

(5) In Section R202 the following definition is added:

HEAT exchanger (Potable Water). A device to transfer heat between two physically separated fluids (liquid or steam), one of which is potable water.

(6) In section R202 the definition of "Potable Water" is deleted and replaced with the following:

POTABLE WATER. Water free from impurities present in amounts sufficient to cause disease or harmful physiological effects and conforming to the Titles 19-4 and 19-5, Utah Code Ann. (1953), as amended and the regulations of the public health authority having jurisdiction.

(7) In Section R202 the definition of "Water Heater" is deleted and replaced with the following:

WATER HEATER. A closed vessel in which water is heated by the combustion of fuels or electricity and is withdrawn for use externally to the system at pressures not exceeding 160 psig (1100 kPa (gage)), including the apparatus by which heat is generated, and all controls and devices necessary to prevent water temperatures from exceeding 210 degrees Fahrenheit (99 degrees Celsius).

(8) Section R301.4 is deleted and replaced with the following:

R301.4 Live Load. The minimum uniformly distributed live load shall be as provided in Table R301.4.

TABLE R301.4  
MINIMUM UNIFORMLY DISTRIBUTED LIVE LOADS  
(in pounds per square foot)

USE	LIVE LOAD
Exterior balconies	60
Decks (f)	40
Fire escapes	40
Passenger vehicle garages (a)	50(a)
Attics without storage (b), (e), (g)	10
Attics with storage (b), (e)	20
Rooms other than sleeping rooms	40
Sleeping rooms	30
Stairs	40(c)
Guardrails and handrails (d)	200

For SI: 1 pound per square foot =  $0.0479\text{kN/m}^2$ , 1 square inch =  $645\text{ mm}^2$  1 pound = 4.45N.

(a) Elevated garage floors shall be capable of supporting a 2,000-pound load applied over a 20-square-inch area.

(b) No storage with roof slope not over 3 units in 12 units.

(c) Individual stair treads shall be designed for the uniformly distributed live load or a 300-pound concentrated load acting over an area of 4 square inches, whichever produces the greater stresses.

(d) A single concentrated load applied in any direction at any point along the top.

(e) Attics constructed with wood trusses shall be designated in accordance with Section R802.10.1.

(f) See Section R502.2.1 for decks attached to exterior walls.

(g) This live load need not be considered as acting simultaneously with other live loads imposed upon the ceiling framing or its supporting structure.

(9) Section R304.3 is deleted and replaced with the following:

R304.3 Minimum dimensions. Habitable rooms shall not be less than 7 feet (2134 mm) in any horizontal dimension.

Exception: Kitchens shall have a clear passageway of not less than 3 feet (914 mm) between counter fronts and appliances or counter fronts and walls.

(10) Section R309.2 is deleted and replaced with the following:

R309.2 Separation required. The garage shall be separated from the residence and its attic area by installation of materials approved for one-hour fire-resistive construction applied to the garage side. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by installation of materials approved for one-hour fire-resistive construction.

(11) Section R312.1.2 is deleted and replaced with the following:

R312.1.2 Landings at doors. There shall be a floor or landing on each side of each exterior door.

Exception: At the exterior side of all non required exit doors. The floor or landing at a door shall not be more than 1.5 inches (38 mm) lower than the top of the threshold.

Exception: The landing of an exterior doorway shall not be more than 8 inches (197 mm) below the top of the threshold, provided that the door, other than an exterior storm or screen door, does not swing over the landing.

(12) Section R314.2 is deleted and replaced with the following:

R314.2 Treads and risers. The maximum riser height shall be 8 inches (203 mm) and the minimum tread depth shall be 9 inches (229 mm). The riser height shall be measured vertically between leading edges of the adjacent treads. The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The walking surface of treads and landings of a stairway shall be sloped no steeper than one unit vertical in 48 units horizontal (2-percent slope). The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm).

R314.2.1 Profile. The radius of curvature at the leading edge of the tread shall be no greater than 9/16 inch (14.3 mm). A nosing not less than 3/4 inch (19.1 mm) but not more than 1 1/4 inches (32 mm) shall be provided on stairways with solid risers. The greatest nosing projection shall not exceed shall not exceed the smallest nosing projection by more than 3/8 inches (9.5 mm) between two stories, including the nosing at the level of floors and landings. Beveling of nosing shall not exceed 1/2 inch (12.7 mm). Risers shall be vertical or sloped from the underside of the leading edge of the tread above at an angle not more than 30 degrees from the vertical. Open risers are permitted, provided that the opening between treads does not permit the passage of a 4-inch diameter (102 mm) sphere.

Exceptions.



1. A nosing is not required where the tread depth is a minimum of 10 inches (254 mm).

2. The opening between adjacent treads is not limited on stairs with a total rise of 30 inches (762 mm) or less.

(13) Section R315.1 is deleted and replaced with the following:

R315.1 Handrails. Handrails shall be provided on at least one side of stairways consisting of four or more risers. Handrails shall have a minimum height of 34 inches (864 mm) and a maximum height of 38 inches (965 mm) measured vertically from the nosing of the treads. All required handrails shall be continuous the full length of the stairs from a point directly above the top riser to a point directly above the lowest riser of the stairway. The ends of the handrail shall be returned into a wall or shall terminate in newel post or safety terminals. A minimum clear space of 1 1/2 inches (38 mm) shall be provided between the wall and the handrail.

Exceptions:

1. Handrails shall be permitted to be interrupted by a newel post at a turn.

2. The use of a volute, turnout or starting easing shall be allowed over the lowest tread.

(14) Section R315.2 is deleted and replaced with the following:

R315.2 Handrail grip size. The handgrip portion of handrails shall have a circular cross section of 1 1/4 inches (32mm) minimum to 2 5/8 inches (67mm) maximum. Edges shall have a minimum radius of 1/8 inch (3.2mm).

Exception: Non-circular handrails shall be permitted to have a maximum cross sectional dimension of 3.25 inches (83mm) measured 2 inches (51 mm) down from the top of the crown. Such handrail is required to have an indentation on both sides between 0.625 inch (16mm) and 1.5 inches (38mm) down from the top or crown of the cross section. The indentation shall be a minimum of 0.25 inch (6mm) deep on each side and shall be at least 0.5 inch (13 mm) high. Edges within the handgrip shall have a minimum radius of 0.0625 inch (2 mm). The handrail surface shall be smooth with no cusps so as to avoid catching clothing or skin.

(15) In Section 321.3.2 Exception 1.1 is deleted and replaced with the following:

1.1 By a horizontal distance of not less than the width of a stud space regardless of stud spacing, or

(16) Section R403.1.6.1 is deleted and replaced with the following:

R403.1.6.1 Foundation anchorage in Seismic Design Categories D<sub>1</sub> and D<sub>2</sub>. In addition to the requirements of Section R403.1.6, the following requirements shall apply to light-wood

frame structures in Seismic Design Categories D<sub>1</sub> and D<sub>2</sub>. Anchor bolts shall be located within 12 inches (305 mm) from the ends of each plate section at interior bearing walls, interior braced wall lines and at all exterior walls. Plate washers a minimum of 2 inches by 2 inches by 3/16 inch (51 mm by 4.8 mm) thick shall be used on each bolt.

Exceptions:

a. When anchor bolt spacing does not exceed 32 inches (816 mm) apart, anchor bolts may be placed with a minimum of two bolts per plate section located not less than 4 inches (102 mm) from each end of each plate section at interior bearing walls, interior braced wall lines and at all exterior walls.

b. When anchor bolt spacing does not exceed 32 inches (816 mm) apart, a properly sized round washer may be used.

The maximum anchor bolt spacing shall be 4 feet (1219 mm) for two-story structures.

(17) Section R703.6 is deleted and replaced with the following:

R703.6 Exterior plaster.

R703.6.1 Lath. All lath and lath attachments shall be of corrosion-resistant materials. Expanded metal or woven wire lath shall be attached with 1 1/2 inch-long (38 mm), 11 gage nails having 7/16 inch (11.1 mm) head, or 7/8-inch-long (22.2 mm), 16 gage staples, spaced at no more than 6 inches (152 mm), or as otherwise approved.

R703.6.2 Weather-resistant barriers. Weather-resistant barriers shall be installed as required in Section R703.2 and, where applied over wood-based sheathing, shall include a weather-resistive vapor permeable barrier with a performance at least equivalent to two layers of Grade D paper.

R703.6.3 Plaster. Plastering with portland cement plaster shall be not less than three coats when applied over metal lath or wire lath and shall be not less than two coats when applied over masonry, concrete or gypsum backing. If the plaster surface is completely covered by veneer or other facing material or is completely concealed, plaster application need be only two coats, provided the total thickness is as set forth in Table R702.1(1). On wood-frame construction with an on-grade floor slab system, exterior plaster shall be applied in such a manner as to cover, but not extend below, lath, paper and screed.

The proportion of aggregate to cementitious materials shall be as set forth in Table R702.1(3).

(18) In Section R703.7 Stone and masonry veneer, general the following exceptions are added:

Exceptions:

3. For detached one- or two-family dwellings with a maximum nominal thickness of 4 inches (102 mm) of exterior masonry veneer with a backing of wood frame located in Seismic

Design Category D<sub>1</sub>, the masonry veneer shall not exceed 20 feet (6096 mm) in height above a noncombustible foundation, with an additional 8 feet (2438 mm) permitted for gabled ends, or 30 feet (9144 mm) in height with an additional 8 feet (2438 mm) permitted for gabled ends where the lower 10 feet (3048 mm) has a backing of concrete or masonry wall, provided the following criteria are met:

(a) Braced wall panels shall be constructed with a minimum of 7/16 inch (11.1 mm) thick sheathing fastened with 8d common nails at 4 inches (102 mm) on center on panel edges and at 12 inches (305 mm) on center on intermediate supports.

(b) The bracing of the top story shall be located at each end and at least every 25 feet (7620 mm) on center but not less than 45% of the braced wall line. The bracing of the first story shall be as provided in Table R602.10.3.

(c) Hold down connectors shall be provided at the ends of braced walls for the second floor to first floor wall assembly with an allowable design of 2100 lbs (952.5 kg). Hold down connectors shall be provided at the ends of each wall segment of the braced walls for the first floor to foundation assembly with an allowable design of 3700 lbs. (1678 kg). In all cases, the hold down connector force shall be transferred to the foundation.

(d) Cripple walls shall not be permitted.

4. For detached one- and two-family dwellings with a maximum actual thickness of 3 inches (76 mm) of exterior masonry veneer with a backing of wood frame located in Seismic Design Category D<sub>2</sub>, the masonry veneer shall not exceed 20 feet (6096 mm) in height above a noncombustible foundation, with an additional 8 feet (2438 mm) permitted for gabled ends, or 30 feet (9144 mm) in height with an additional 8 feet (2438 mm) permitted for gabled ends where the lower 10 feet (3048 mm) has a backing of concrete on masonry wall, provided the following criteria are met:

(a) Braced wall panels shall be constructed with a minimum of 7/16 inch (11.1 mm) thick sheathing fastened with 8d common nails at 4 inches (102 mm) on center on panel edges and at 12 inches (305 mm) on center on intermediate supports.

(b) The bracing of the top story shall be located at each end and at least every 25 feet (7620 mm) on center but not less than 55% of the braced wall line. The bracing of the first story shall be as provided in Table R602.10.3.

(c) Hold down connectors shall be provided at the ends of braced walls for the second floor to first floor wall assembly with an allowable design of 2300 lbs (1043 kg). Hold down connectors shall be provided at the ends of each wall segment of the braced walls for the first floor to foundation assembly with an allowable design of 3900 lbs. (1769 kg). In all cases,

the hold down connector force shall be transferred to the foundation.

(d) Cripple walls shall not be permitted.

(19) In Section R703.8, number 8 is added as follows:

8. At the intersection of foundation to stucco, masonry, siding, or brick veneer with an approved corrosive-resistance flashing with a 1/2" drip leg extending past exterior side of the foundation.

(19) Section P2602.2 is added as follows:

P2602.2 Individual water supply. Where a potable public water supply is not available, individual sources of potable water supply shall be utilized provided that the source has been developed in accordance with Sections 73-3-1 and 73-3-25, Utah Code Ann. (1953), as amended, as administered by the Department of Natural Resources, Division of Water Rights. In addition, the quality of the water shall be approved by the local health department having jurisdiction.

(20) Section P2602.3 is added as follows:

P2602.3 Sewer required. Every building in which plumbing fixtures are installed and all premises having drainage piping shall be connected to a public sewer where the sewer is within 300 feet of the property line in accordance with Section 10-8-38, Utah Code Ann, (1953), as amended; or an approved private sewage disposal system in accordance with Rule R317-5501 through R317-513 and Rule R317-5, Utah Administrative Code, as administered by the Department of Environmental Quality, Division of Water Quality.

(21) Section P2603.2.1 is deleted and replaced with the following:

P2603.2.1 Protection against physical damage. In concealed locations where piping, other than cast-iron or galvanized steel, is installed through holes or notches in studs, joists, rafters, or similar members less than 1 1/2 inch (38 mm) from the nearest edge of the member, the pipe shall be protected by shield plates. Protective shield plates shall be a minimum of 1/16 inch-thick (1.6 mm) steel, shall cover the area of the pipe where the member is notched or bored, and shall be at least the thickness of the framing member penetrated.

(22) Section P2710.1 is deleted and replaced with the following:

P2710.1 Finished. Shower walls shall be finished in accordance with Section R307.2.

(23) Section P2801.2 is added as follows:

P2801.2 Water heater seismic bracing. Water heaters shall be anchored or strapped in the upper third of the appliance to resist a horizontal force equal to one third the operating weight of the water heater, acting in any horizontal direction,

or in accordance with the appliance manufacturers recommendations.

(24) Section P2902.1.1 is added as follows:

P2902.1.1 Backflow assembly testing. The premise owner or his designee shall have backflow prevention assemblies operation tested at the time of installation, repair and relocation and at least on an annual basis thereafter, or more frequently as required by the authority having jurisdiction. Testing shall be performed by a Certified Backflow Preventer Assembly Tester. The assemblies that are subject to this paragraph are the Spill Resistant Vacuum Breaker, the Pressure Vacuum Breaker Assembly, the Double Check Backflow Prevention Assembly, the Double Check Detector Assembly Backflow Preventer, the Reduced Pressure Principle Backflow Preventer, and Reduced Pressure Detector Assembly, and the spring loaded check valve assembly described in amended Section 608.16.4 of the International Plumbing Code.

(25) Section P2903.9.3 is deleted and replaced with the following:

P2903.9.3 Valve requirements. Valves serving individual fixtures, appliances, risers, and branches shall be provided with access. An individual shutoff valve shall be required on the water supply pipe to each water closet, lavatory, kitchen sink, and appliance.

(26) Section P3003.2.1 is added as follows:

Section P3003.2.1 Improper Connections. No drain, waste, or vent piping shall be drilled and tapped for the purpose of making connections.

(27) In Section P3103.6, the following sentence is added at the end of the paragraph:

Vents extending through the wall shall terminate not less than 12 inches from the wall with an elbow pointing downward.

(28) In Section P3104.4, the following sentence is added at the end of the paragraph:

Horizontal dry vents below the flood level rim shall be permitted for floor drain and floor sink installations when installed below grade in accordance with Chapter 30, and Sections P3104.2 and P3104.3. A wall cleanout shall be provided in the vertical vent.

(29) Chapter 43, Referenced Standards, is amended as follows:

The following reference standard is added:

TABLE

USC-	Foundation for Cross-Connection	Section P2902
FCCCHR	Control and Hydraulic Research	
9th	University of Southern California	
Edition	Kaprielian Hall 300	
Manual	Los Angeles CA 90089-2531	

of Cross  
Connection  
Control

KEY: contractors, building codes, building inspection,  
licensing

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58-1-202(1)(a)

58-56-1

58-56-4(2)

58-56-6(2)(a)

58-